

# **W6IFE San Bernardino Microwave Society Newsletter**

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**June 1998** The 4 meeting tech talk will be George, K6MBL on magnetron operation. The SBMS meets at the American Legion Hall 1024 Main Street (south of the 91 freeway) in Corona, CA at 1930 hours local time on the first Thursday each month.

Last meeting-Robin , WA6CDR filled in with a talk about the Cactus Intertie Network. Cactus is in its 25th year of operation on the 450 MHz band connecting all of California with 5 other states. In some places 2 and 5 Ghz links connect sites within the system. It is the largest continuously operating amateur network in the US. The system can be segmented for special events within an area. All 1300 members are control operators. There are some 110 radios on line controlled by amateurs. Links have an average distance of 130 miles (outside Texas, Texas flatlands have 60-90 mile links). Multiple routes allow for failures and maintenance at sites. Frequency reuse is quite common throughout the system since it covers such large geography. Cactus uses fewer frequencies than some local networks. The system allows multiple conversations to happen concurrently with everyone hearing everyone else. Thanks Robin for educating us. Bob W6SYA indicated the 18 inch DSS dishes and mounting are still available for the shipping cost (about \$12 per dish) from SATMART 166 Brim Creek Rd Vader WA 98593 1-800-295-3925 or sales@satmart.com. Welcome to visitors; Kerry Banke, N6IZW of San Diego; John Oppen, KJ6HZ of Stanon; Ron Hammel, KC6WLC of Lancaster; and Mel Swanberg, WA6JBD of Riverside. Dave, WB6OVZ was elected recording secretary following Eric, KD6GLP changing work schedules. Ed, K6ODV is reported doing super following eye surgery. A place is still needed for the joint SBMS and San Diego Microwave Group picnic/ antenna party. Ed, W6OYJ and Kerry, N6IZW brought in some left over equipment from the Ray Harland, W7FRA estate. Robin, WA6CDR carried in some excess 2 Ghz equipment. SBMS will be responding to the request for comments on FCC RM9259 about following bandplans.

Scheduling

13-14 June ARRL VHF QSO Party

27 June ARRL Field Day

2 July Doug, K6JEY Rubidium standards

1-2 August ARRL UHF contest

6 Aug. tech talk TBD

15-16 Aug. ARRL 10 GHZ and Up cumulative 1st half

3 Sept. tech talk TBD

12 Sept. ARRL VHF QSO Party

19-20 Sept. ARRL 10 Ghz and up cumulative 2nd half.

"Wants and Gots" for sale

Have HP-431 Power meter no head \$20 dick WB6DNX 714-529-2800.

Have HP-415 VSWR Meter \$20 Ken WB6DTA 818-848-9059.

Have Avantek FET Amp for 10 Ghz about 150mw out on TX, 2.5 dB NF on RX sma in waveguide out \$30---  
-818-248-3683.

Want 24 Ghz gunnplexer with varactor Dick WB6DNX 714-529-2800.

Activity reported at the May meeting: Ken, WB6DTA received crystals for the LO of his 2 GHz rig and elemered another amateur on to 10 Ghz; chuck, WA6EXV modified some 2 Ghz filters for members and built some modules out of a 6 Ghz Qualcom unit; Bill, WA6QYR helped Chuck with 2 Ghz filter adjustments, is building a 2 Ghz rig and is struggling with a DEM 3 Ghz rig; Ed, W6OYJ has his tower back up; Kerry, N6IZW is trying to get people on 10 Ghz in San Diego( San Diego Microwave Group meets 3rd Monday at Kerry's house and has a net on 1296.1 MHz on wed 8 pm; Dan, KM6PO is collecting 10 Ghz parts; John, KJ6HZ has a drake 2880 2 Ghz converter and 2 10 Ghz gunnplexers; Kurt, K6RRA is collecting 2 Ghz parts; Ron, KC6WLC is looking for 1.2 Ghz contacts; George, K6MBL is working on his magnetron talk for next month; Bob, W6SYA is working on his subreflector for the 2 ft dish and feeds, he has the 10 Ghz Qualcom kit done and ready for mounting; Jim, K6ML is working on 2 and 10 Ghz rigs; Gary, W6KVC worked the Barstow to Las Vegas race with 2 Ghz ATV; chip, N6CA is working on 1.2 Ghz repeater designs, the Palos Verde 10368.3 MHz beacon will be moving to Santiago PK in the coming months; Dick, WB6DNX had 2 Ghz parts for distribution and talked about microwave at the Placenta Club.

This is a follow on to an ARRL info-server document ismfreq.txt dated back in 1992. I found in a 1998 magazine a 1996 update to the Omega Enginnering Inc. wall chart in the referenced text. The ISM bands remained the same but the amateur bands and some of the other little notes changed and seemed interesting. Also marked on chart was US Department of Commerce, National Telecommunications and Information Administration, Office of Spectrum Management, November 1996 perhaps as the source of the data.

ISM stands for Industrial, Scientific and Medical.

6.78 MHz +/- 15 kHz

13.56 MHz +/- 7 kHz

27.12 MHz +/- 163 KHz

40.68 MHz +/- 20 KHz

915.0 MHz +/- 15 MHz

2450.0 MHz +/- 50 MHz Microwave ovens

5800.0 MHz +/- 75 MHz

24.125 GHz +/- 125 MHz

61.25 GHz +/- 250 MHz

122.5 GHz +/- 500 MHz

245.0 GHz +/- 1 GHz

1850 to 1910 Mhz and 1930 to 1990 Mhz are new PCS frequencies with 1910 to 1930 Mhz being unlicensed PCS devices.

59 to 64 Ghz is now for unlicensed devices.

The noting of "non-government exclusive" frequencies might be a tag for possible spectrum grabs. Most of those frequencies were the amateur bands.

1.8-1.9 Mhz

3.5-4.0 Mhz

7.0-7.3 MHz

10.1-10.15 MHz

14.0-14.35 MHz

18.068-18.168 MHz

21.0-21.45 MHz

24.89-24.99 MHz

28.0-29.7 MHz

50.0-54.0 MHz

144.0-148.0 MHz

216-220 Mhz shared with govt

222-225 MHz

420-450 Mhz shared with govt

902-928 Mhz shared with govt

1240-1300 Mhz shared with govt

2300-2310 MHz

2310-2360 Mhz non amateur

2360-2390 Mhz non amateur

2390-2400 MHz

2400-2402 MHz

2402-2417 MHz

2417-2450 Mhz shared with govt

3300-3500 Mhz shared with govt

5650-5925 Mhz shared with govt

10.0-10.45 Ghz shared with govt

10.45-10.5 GHz

24.0-24.05 GHz

24.05-24.25 Ghz satellite

47.0-47.2 GHz

75.5-76.0 GHz

76.0-81 Ghz satellite

142-144 GHz

144-149 Ghz satellite

241-248 Ghz satellite

248-250 Ghz

Bill Burns WA6QYR 4-14-98

Here is a list of VHF/ Microwave Clubs and newsletters from Harry Brown W3IIT with my edits 4-12-98  
micclub.doc

Mt Airy VHF Radio Club, Inc., (the Packrats) / Cheesebits

Cost is \$10.00 per year (US), \$12.00 (Canada) and \$15.00 (rest of the world)

50 MHz up. PA/NJ/ DE area , sponsor the Mid Atlantic States VHF Conference

Harry Brown W3IIT, Editor

3012 Potshop Road Norristown, PA 19403-3819

hbrown@voicenet.com

hbrown@vf.lmms.lmco.com

<http://www.ij.net/packrats/>

The Rochester VHF Group/ The VHF Journal

monthly- \$10/yr

50 Mhz up, experimenters, operators

Editor: Curtis Braun, N2HKD

P.O. Box 92122 Rochester, NY 14692

716.223.1347

[braun@mail.dec.com](mailto:braun@mail.dec.com)

<http://VHFGroupers.greeceny.com>

Great Lakes VHF Newsletter

Dave Bostedor Jr. N8NQS

434 Pattie Ave. Jackson, MI 49202

North Texas Microwave Society / Feedpoint

\$12.00 per year and it is published 6 times per year.

microwave, construction

Editor Kent Britain, WA5VJB [kbritain@johnstontech.com](mailto:kbritain@johnstontech.com)

1626 Vineyard, Grand Prairie, TX 75052-1405

Wes Atchison, WA5TKU, the treasurer/membership [wes@iphase.com](mailto:wes@iphase.com)

Rt. 4, Box 565 Sanger, TX 76266

San Bernardino Microwave Society / W6IFE Newsletter

Cost is \$15/year, published monthly

microwave activity and circuits

Editor: Bill Burns, WA6QYR, bburns@ridgecrest.ca.us

247 Rebel Rd, Ridgecrest, CA 93555

<http://www1.ham-radio.com/sbms>

Midwest VHF-UHF Society / Anomalous Propagation

\$8.00 per year, published monthly

Editors: Robert French, N8EHA and Gerd Schrick, WB8IFM

Robert French 1102 Lindsey Ave Miamisburg, OH 45342

rfrance@engr.udayton.edu

Upper Midwest VHF/UHF Newsletter

\$10/year (US) and \$12/year (Canadian)

Editor/Publisher Rich Westerberg, N0HJZ

17500 Cherry Drive Eden Prairie. MN 55346

N.E.W.S.Letter of North East Weak Signal VHF Group

\$10/ yr bimonthly

VHF to SHF sponsor NE VHF Conference

Del Schien KD1DU 126 Old W. Mountain Rd, Ridgefield, CT 06877

KD1DU@amsat.org

Rocky Mountain VHF+ Newsletter

Wayne HeinenN0POH, PO Box 473411 Aurora, CO 80047-3411

<http://www.umecut.maine.edu/~baack/vhfnewslist/>

West Coast VHFER

\$14/yr

weak signal vhf and up

Robert Cerasuolo WA6IJZ

PO Box 685 Holbrook, AZ 86025 520-524-3354

Western States Weak Signal Society

\$10/yr bimonthly

50 Mhz and up

Wesley Printz, W3SE PO Box 86 Downey, CA 90241-0086

w3se@dxer.com

<http://www.psnw.com/~n7stu> or [www.qsl.net/n7wls/wswss.htm](http://www.qsl.net/n7wls/wswss.htm)

Bill WA6QYR